

Claims

[1]           An electric pump unit in which a pump section for sucking and discharging a fluid is formed on one end side of a rotation shaft disposed through a hole provided in an inner wall for dividing a housing, and a motor section is formed on another end side of said rotation shaft, said motor section comprising: a rotor consisting of a rotor core and a permanent magnet which are fixed to an outer circumference of said rotation shaft; and a stator consisting of a stator core having a teeth portion, and a coil which are disposed in a periphery of said rotor, wherein

          said permanent magnet constituting said rotor is embedded in said rotor core.

[2]           An electric pump unit according to claim 1, wherein a bearing gap is disposed between an outer-diameter face of said rotor core and an inner-diameter face of said stator core opposed thereto, and rotation of said rotation shaft is supported by said stator core.

[3]           An electric pump unit according to claim 2, wherein said stator core is an annular stator core comprising: an annular core having a cylindrical inner circumferential face; and a tooth portion protruding from an outer circumferential face of said annular core in a radial direction.

[4]           An electric pump unit according to claim 2 or 3,

wherein a solid lubricant coating film made of a non-magnetic material is formed on at least one of said outer-diameter face of said rotor core and said inner-diameter face of said stator core opposed thereto.

- [5]       An electric pump unit according to any one of claims 1 to 4, wherein said permanent magnet is a rare-earth magnet, and said rotor core is formed by using laminated electromagnetic steel plates.